

## Paper I - Answers

Question Number	Answer
1	4
2	3
3	3
4	3
5	3
6	ALL
7	1
8	4
9	3
10	1
11	4
12	2
13	4
14	3
15	1
16	4
17	2
18	4
19	3
20	3

Question Number	Answer
21	1
22	2
23	4
24*	1
25	1
26	3
27	3
28	4
29	2
30	3
31	2
32	3
33	1
34	1
35	4
36	4
37	4
38	4
39	1
40	2

Question No - 24 - \*MCQ Tamil version all correct

Question No - 06 - \*MCQ All mediums all correct

Question No - 24 - \*MCQ தமிழ் மொழி ஊடகத்தில் மட்டும் அனைத்து விடைகளும் சரி

Question No - 06 - \*MCQ எல்லா மொழி ஊடகங்களிலும் அனைத்து விடைகளும் சரி



## Paper II

### Guide

{ } indicates optional part of the answer

/ indicates different answers to consider. Select 1 or number of points as indicated in the question.

[ ] indicates only one point to be considered from several points given within [ ]

1. (i) Computers can be classified into generations according to the main electronic component (technology) used in the Central Processing Unit (CPU). Copy the table below into your answer script and fill the second column.

<i>Generation</i>	<i>Main electronic component (technology) used</i>
First	
Second	
Third	

- (ii) Consider the following incomplete truth table of the logical expression (A OR B) AND (NOT C) with some missing inputs and outputs marked as '?'. You are required to copy this table into your answer script and fill in the cells marked as '?' with suitable binary values.

*Note:* You are required to copy given 1 and 0 values correctly.

Inputs			Output
A	B	C	(A OR B) AND (NOT C)
1	1	1	?
1	1	0	?
1	0	1	0
1	0	?	1
0	1	1	?
0	1	0	?
?	0	1	0
0	0	?	0

- (iii) Briefly explain the main difference between *application software* and *system software*. You are required to provide an example each for application software and system software.
- (iv) Briefly explain the main difference between *tailor made* software and *off-the-shelf* software.



**Q1- Answers**

(i)

Generation	Main Electronic Component
First	Valve/ Vacuum Tube வால்வு / வெற்றிடக்குழாய்
Second	Transistor திரான்சிஸ்டர் / திரிதலை பாய்
Third	Integrated Circuit/ IC ஒருங்கிணைந்த சுற்று

[2x3 = 6 marks]

(ii)

A	B	C	(A OR B) AND (NOT C)
1	1	1	0
1	1	0	1
1	0	1	0
1	0	0	1
0	1	1	0
0	1	0	1
0	0	1	0
0	0	0	0

[7 marks]

(iii)

Application software [users performs specific/special/certain/particular tasks using the computer]

பிரயோக மென்பொருள் [கணினியைப் பயன்படுத்தி (பயனர்கள்) குறிப்பிட்ட/ விசேட/ தேவையான கொள்பணிகளை நிறைவேற்றக்கூடியதாகும்.]

System software [Interacts between hardware, software, users / Control or manage hardware]

முறைமை மென்பொருள் [ வன்பொருள், மென்பொருள், பயனர்களுக்கிடையில் இடைமுகத் தொடர்பை ஏற்படுத்துகின்றது / வன்பொருளைக் கட்டுப்படுத்துகின்றது]

[2.5x2 = 5 marks or 0]



Examples application software: [MS Office, Acrobat Reader, Photoshop, MSWord, or any other equivalent...]

Examples for system software [Windows, Linux, MacOS or Any other Equivalent]

பிரயோக மென்பொருளுக்கான உதாரணம்: [MS Office, Acrobat Reader, Photoshop, MSWord, or any other equivalent...]

முறைமை மென்பொருளுக்கான உதாரணம் : [Windows, Linux, MacOS or Any other Equivalent]

[1x2 = 2 marks]

(iv)

*Tailor made software developed for specific requirements while off-the-shelf software already available for use*

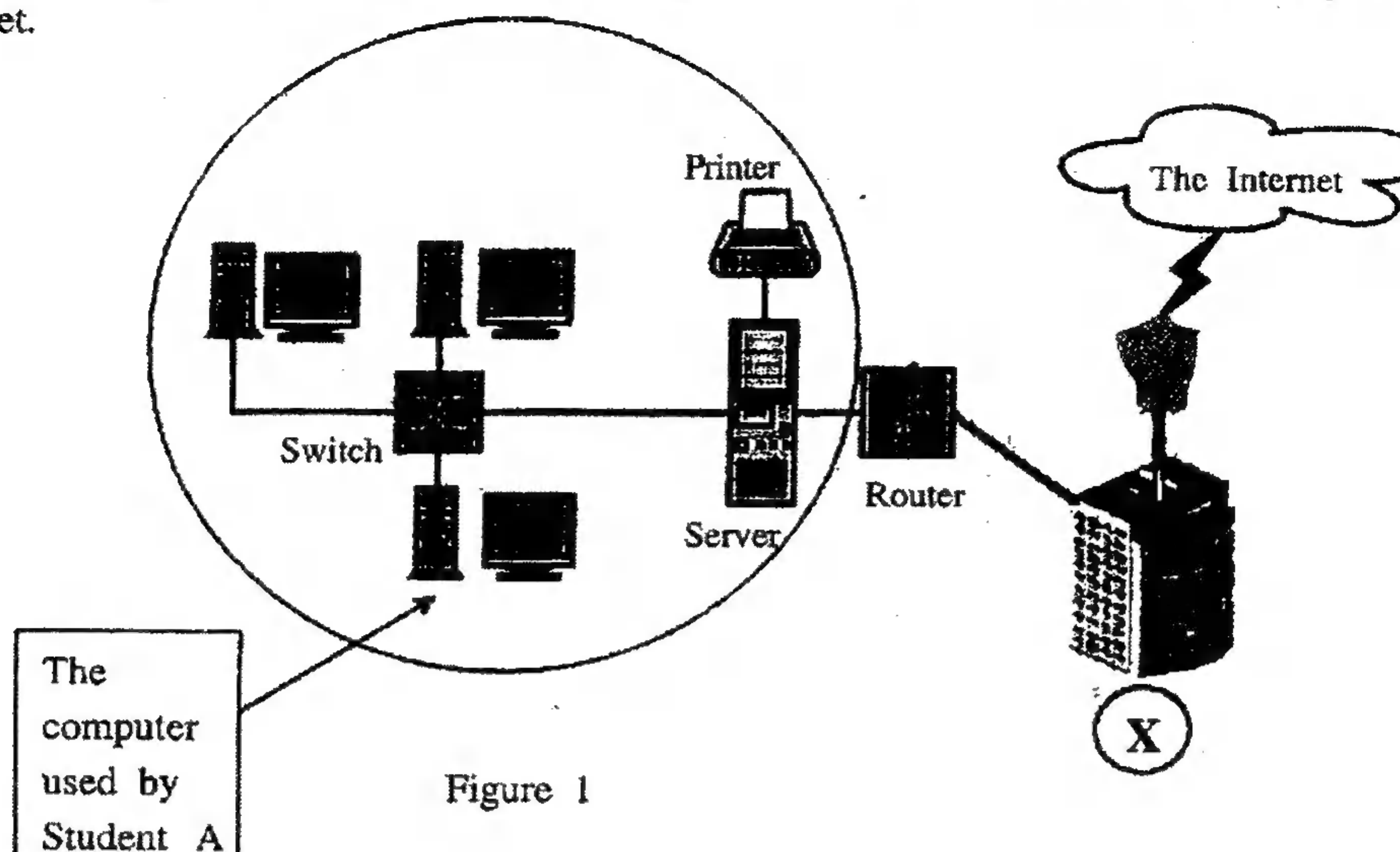
தேவைகளுக்கேற்ப அமைத்த (Tailor made ) மென்பொருளானது குறித்த தேவைகளுக்காக விருத்தி செய்யப்பட்டதாகும். அதே நேரத்தில் கொள்வனவு செய்யத்தக்க பொதி செய்த (off the shelf ) மென்பொருளானது தற்போதும் பாவனைக்காக கிடைக்கக்கூடியதாக இருக்கின்றது.

[2.5x2 = 5 marks]

[25 marks]



2. (a) The diagram in Figure 1 demonstrates how computers in a school computer laboratory are connected to the Internet.



- (i) What is the name used to denote the type of network shown in the circled area?
  - (ii) Name a component that is fixed inside the computer used by *Student A*, to connect his computer to the network.
  - (iii) List two advantages of using a network such as the one in the circled area in the school computer lab.
  - (iv) The network of the school computer lab connects to the Internet through the service provided by an organisation denoted by (X). Write down the common term used to identify (X).
- (b) Figure 2 shows a section of a screenshot that contains the result of a Web search performed by a student to find information about the 'History of computer'.

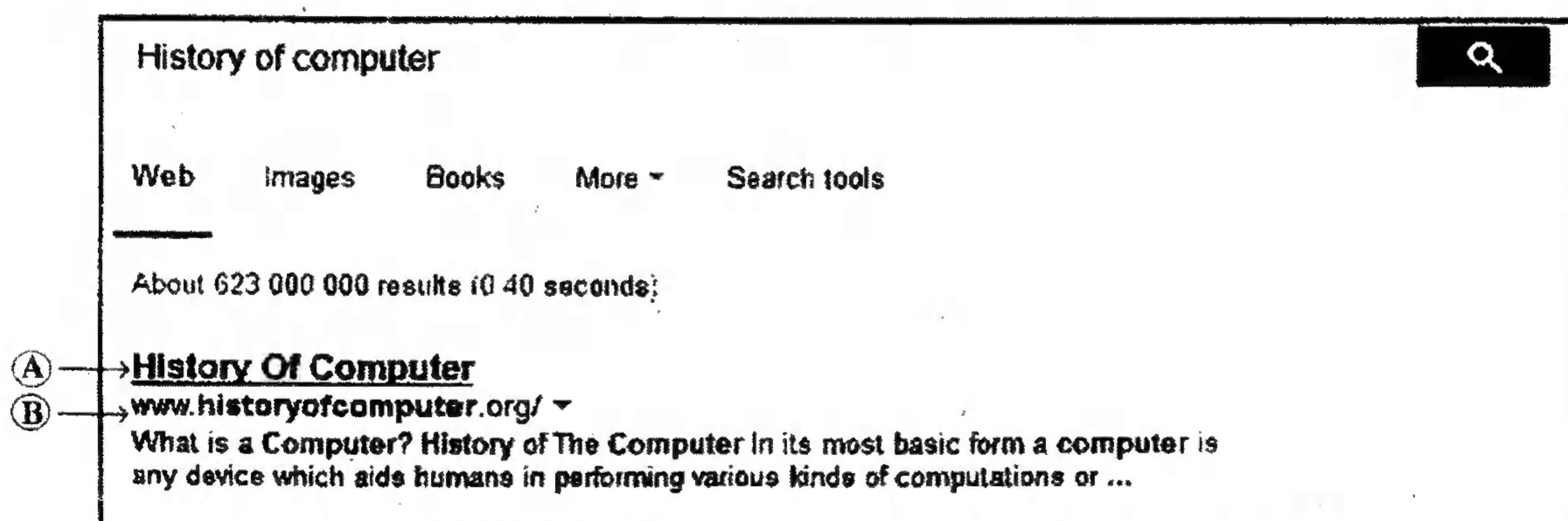


Figure 2

- (i) Name a search engine that could be used to find the above information.
- (ii) The student clicks on the line of text denoted by (A) to access the corresponding webpage. What is the usual name used to denote such text on a web page?
- (iii) What is the top level domain of the Web address denoted by (B)?
- (iv) Assume that the student clicks on the text labeled (A) and visits the corresponding webpage. This student uses a feature provided by the Web browser to save the Web address of this page for the convenience of accessing it again later. What is the name of this feature provided by the Web browser?



**Q2 - Answers**

(a)

- (i) Local Area Network/ LAN  
இடத்தூரி வலையமைப்பு

[3 marks]

- (ii) Network Interface Card/ NIC/Network card  
வலையமைப்பு இடைமுக அட்டை

[3 marks]

(iii)

- [Share hardware resources/ share devices/ naming a device to share such printer]
- Share resources
- Share software resources
- [Remote access/ accessing machine from a another machine]
- Cost reduction through sharing of resources
- [Data /information sharing]
- Reliable data storage
- Centralized {data/ software} management
- Sending {email/messages} / exchange information

Any two of the above

- [வன்பொருள் வளப்பங்கீடு / உபகரணங்கள் பங்கீடு / அச்சுப்பொறி போன்ற வன்பொருள்களின் பெயர்களை குறிப்பிடுதல்.]
- வளப்பங்கீடு
- மென்பொருள் பங்கீடு
- [தொலைதூர அணுகல் / ஒரு கணினியிலிருந்து இன்னொரு கணினிக்கு அணுகல்]
- வளப்பங்கீடு செய்வதினூடாக கிரயத்தைக் குறைத்தல்
- [தரவு / தகவல் பங்கீடு]
- நம்பகமான தரவு சேமிப்பு
- மையப்படுத்தப்பட்ட { தரவு / மென்பொருள் } முகாமைத்துவம்
- {மின்னஞ்சல் / செய்திகளை} அனுப்புதல் / தகவல் பரிமாற்றம்

மேலுள்ளவற்றில் ஏதாவது இரு விடைகள்

[3x2= 6 marks]

- (iv) Internet Service Provider/ISP

இணைய சேவை வழங்குனர்

[3 marks]

(b)

(i) Google, MSN Search, Yahoo, Ask.com, Bing,

Northern Light, Yandex, Goto, cmpas, AlltheWeb, GenieKnows, Naver, Teoma, Vivisimo, Baidu, Exalead, Gigablast, Inktomi, Info.com, Scroogle, A9.com, Sogou, AOL Search, GoodSearch, SearchMe, wikiseek, Quaero, Live Search, ChaCha, Guruji.com, wikiseek, Sproosc, Wikia Search, Blackle.com, Powerset, Picollator, Viewzi, Boogami, LeapFish, Forestle, DuckDuckGo, Yebol, Mugurdy, Goby, NATE, Blekko, Cuil, Yandex, YaCy, Volunia, Cloud Kite

Or

URL e.g. [www.yahoo.com/](http://www.yahoo.com/) [google.com](http://google.com)

[2 marks]

(ii) Hyperlink

மீயிணைப்பு / மீயிணை

[3 marks]

(iii) .org /org

[2 marks]

(iv) Bookmark/Favorites

புத்தகக் குறியீடு

[3 marks]

[25 marks]



3. (a) The document shown in Figure 3 was initially created by using 'Times New Roman' font with the font size of 10 without applying any other formatting. The document was then formatted by using some common tools available in word processing software. Labels 1 to 17 in Figure 4 denote the formatting tools provided by a typical word processing software.

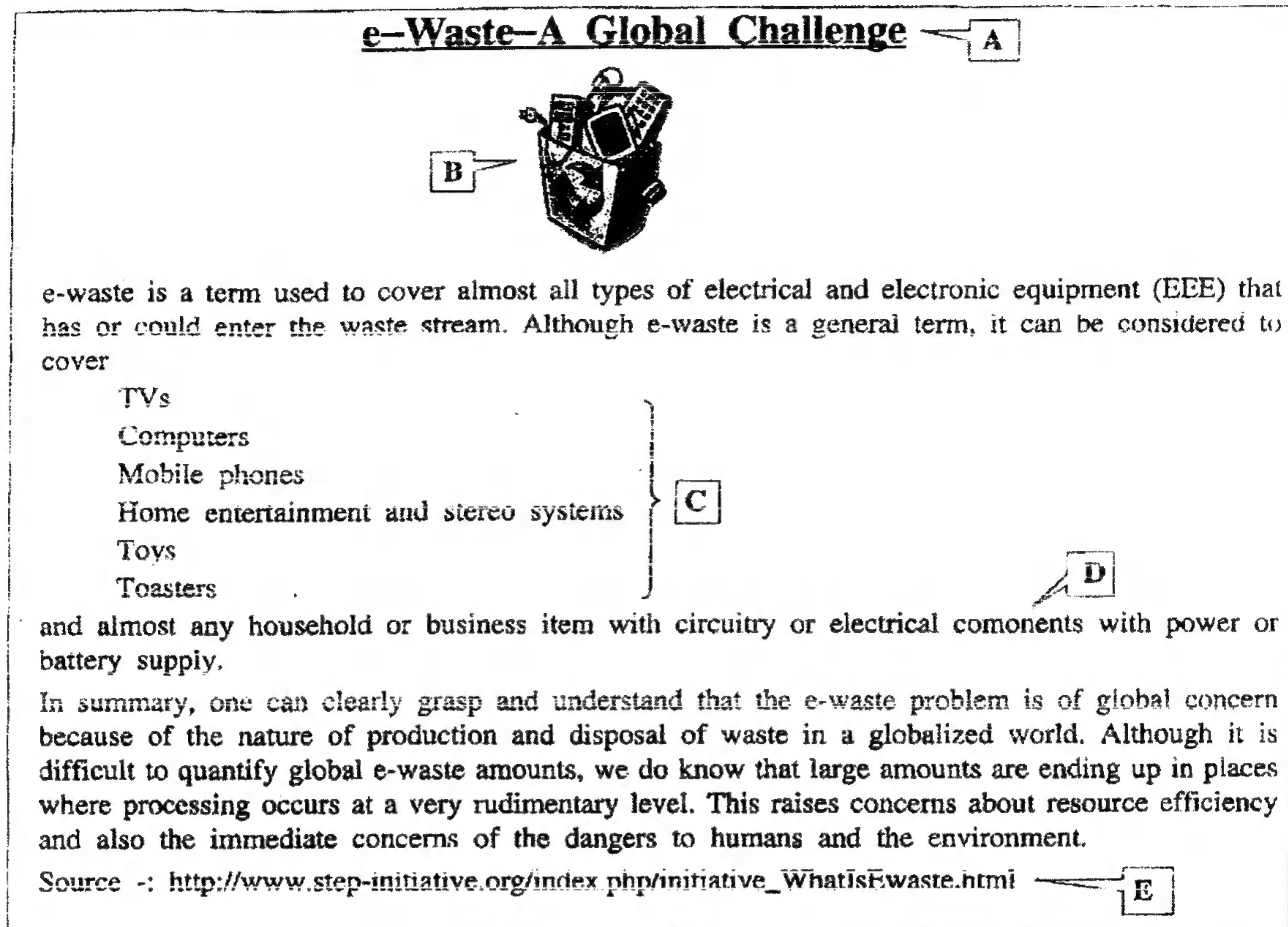


Figure 3

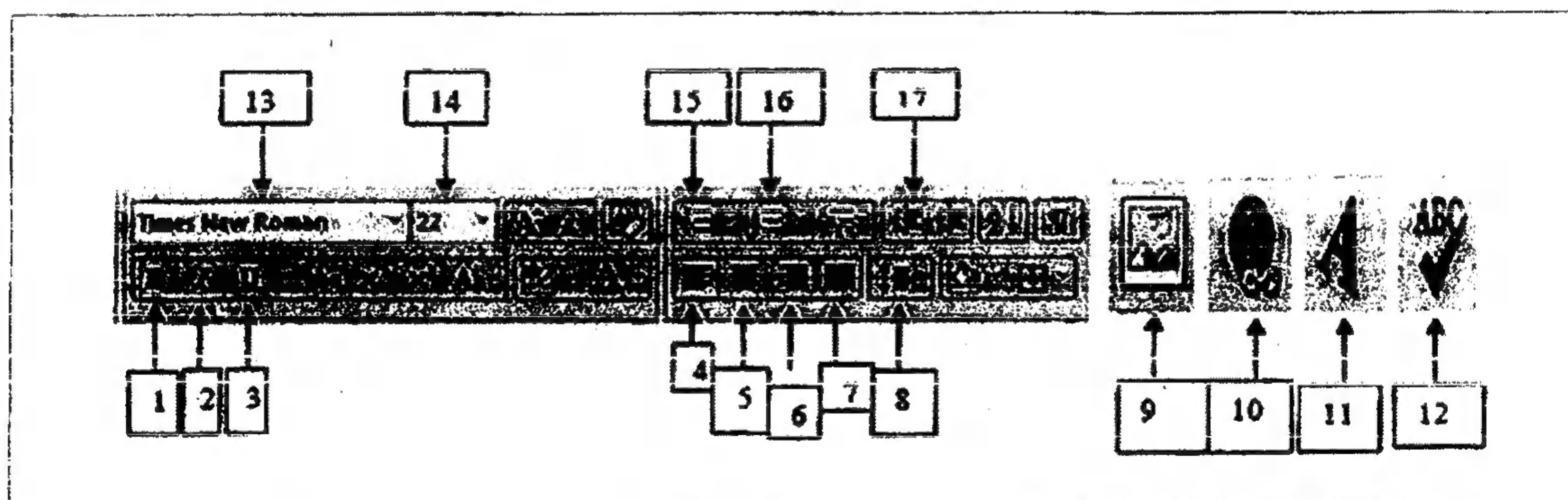


Figure 4

Using labels 1 to 17, write down the tool/tools required to complete the following tasks. (Note: No marks will be awarded if you write more than the required number of labels.)

- Format the title of the document to the appearance denoted by label A.
- Insert the image shown as B.
- Make the text shown as C a bulleted list.
- Check and correct the spellings of the word marked as D.
- Convert the text shown as E into a hyperlink.



- (b) Write down the most suitable terms from the list given in the brackets to fill the blanks of the following statements related to an electronic presentation. You are only required to write down the question number and the correct term from the given list.

[slide animation, slide layout, slide show, slide sorter, new presentation]

- (i) The presentation can be viewed as a ..... by pressing the F5 function key in a computer keyboard.
- (ii) The shortcut key combination, Ctrl+N is used to create a .....
- (iii) The style of a slide can be changed from one style to another by using the ..... feature of a presentation software.
- (iv) The location of a slide can be changed by using the .....

### Q3 Answers

(a)

Note(i-v): No marks awarded if more than the required number of steps are specified.

குறிப்பு : (i) - (v) வரையான வினாக்களுக்கு தேவைக்கு மேலதிகமான முகப்பு அடையாளங்கள் குறிப்பிடப்பட்டிருந்தால் ஒரு புள்ளியும் வழங்கப்படமாட்டாது.

(i) [1], 3, 5, 14

one correct 2 marks

[ 4 marks]

two " 3 marks.

1, 3, 5, 14 or 3, 5, 14 = 4 marks

இரண்டு விடை சரியாகவும் மேலதிகமான எதுவும் பிழையாக எழுதாவிடின் = 3 marks

ஒரு விடை சரியாகவும் மேலதிகமாக எதுவும் பிழையாக எழுதாவிடின் = 2 marks

(ii) 9, [ 5 ]

no marks for only (5)

[3 marks]

9=> 3 marks

9,5 => 3 marks

(iii) 15

[2 marks]

(iv) 12

[3 marks]

(v) 10

[3 marks]



(b)

(i) slide show/ பட வில்லைக் காட்சி

[2.5 marks]

(ii) new presentation/ புதிய நிகழ்த்துகை

[2.5 marks]

(iii) slide layout / படவில்லைத் தளக் கோலங்கள்

[2.5 marks]

(iv) slide sorter/ படவில்லைப் பிரிப்பு

[2.5 marks]

**[25 marks]**



4. (a) The following spreadsheet shows statistics about the population and the number of Internet users in different regions of the world.

	A	B	C	D	E
1					
2		World Regions	Population	Internet Users	Internet penetration rate
3		Africa	1,073,380,925	167,335,676	
4		Asia	3,922,066,987	1,076,681,059	
5		Europe	820,918,446	518,512,109	
6		Middle East	223,608,203	90,000,455	
7		North America	348,280,154	273,785,413	
8		Latin America / Caribbean	593,688,638	254,915,745	
9		Oceania / Australia	35,903,569	24,287,919	
10		Total			
11					
12					
13					

(Source: [www.internetworldstats.com](http://www.internetworldstats.com))

- (i) A function of the following format was entered into cell C10 to calculate the total world population.  

$$= \text{function\_name} (\text{cell\_address1} : \text{cell\_address2})$$

Write down the correct terms for *function\_name*, *cell\_address1* and *cell\_address2*.

- (ii) Write down the name of the function that can be used to find the highest number of Internet users in a world region based on the data given in column D.
- (iii) The following formula can be used to calculate the Internet penetration rate for a given world region:

$$\text{Internet penetration rate} = (\text{internet users} / \text{population}) * 100$$

Write down the formula to be entered in cell E3 to calculate the Internet penetration rate for Africa.

- (iv) Assume that your teacher asked you to find the Internet penetration rates for other regions of the world **without** manually entering the formula again into individual cells. The following table shows a set of steps to be followed to carry out this task, organised in an **incorrect order**. Arrange these steps in the correct order using labels A to D.

Label	Step
A	Click on the <i>copy</i> icon
B	Click on the <i>paste</i> icon
C	Select cell E3
D	Select cell range E4:E9

- (b) A survey was conducted among primary school children to determine the status of their health. A part of the database used to store this data is given in the following table: Assume that in this table, the Child\_ID of a record is unique.

Child_ID	Name	DoB	Height	Weight	Polio_vaccination	Measles_vaccination
1	Pium Wijesiri	25/02/2004	102	35	YES	YES
2	Meera Jayaratnam	15/04/2004	110	34	YES	NO

- (i) Write down the appropriate data types against the fields: Child\_ID, Name, DoB, Weight and Measles vaccination.
- (ii) Identify the most suitable field for the primary key of the above table.



**Q4 - Answers**

(a)

- (i) function name : SUM  
cell\_address1: C3  
cell\_address2: C9  
or =sum(C3:C9) or sum(C3:C9)

[1x3 =3 marks]

- (ii) MAX

[2 marks]

- (iii) =D3/C3\*100 or =(D3/C3)\*100

[4 marks]

- (iv) C, A, D, B

[4 marks]

\*If the left to right order is correct, a mark is awarded for each step.

இடமிருந்து வலம் சரியான முறையில் ஒழுங்குபடுத்தப்பட்டால் ஒவ்வொரு படிமுறைக்கும் ஒரு புள்ளி வீதம் 4 புள்ளிகள்.

(b)

- (i) Child\_ID : number/ numeric/auto number/ text எண் / பாடம்

Name : Text/String பாடம்

DoB : Date or Date/Time திகதி /நேரம்

Weight : number/ numeric எண்

Measles\_vaccination : Logical/ Boolean or Yes/No

தர்க்கரீதியானது / பூலியன் or ஆம் / இல்லை

[2x5 =10 marks]

- (ii) Child\_ID

[2 marks]

\*Field name has to be spelled correctly with the underscore

\*புலப்பெயரானது கீழ்க்கோட்டு அடையாளத்துடன் எழுத்துப் பிழையின்றி எழுதப்பட வேண்டும்.

[25 marks]



5. (a) Name the following flowchart symbols.



(A)



(B)



(C)

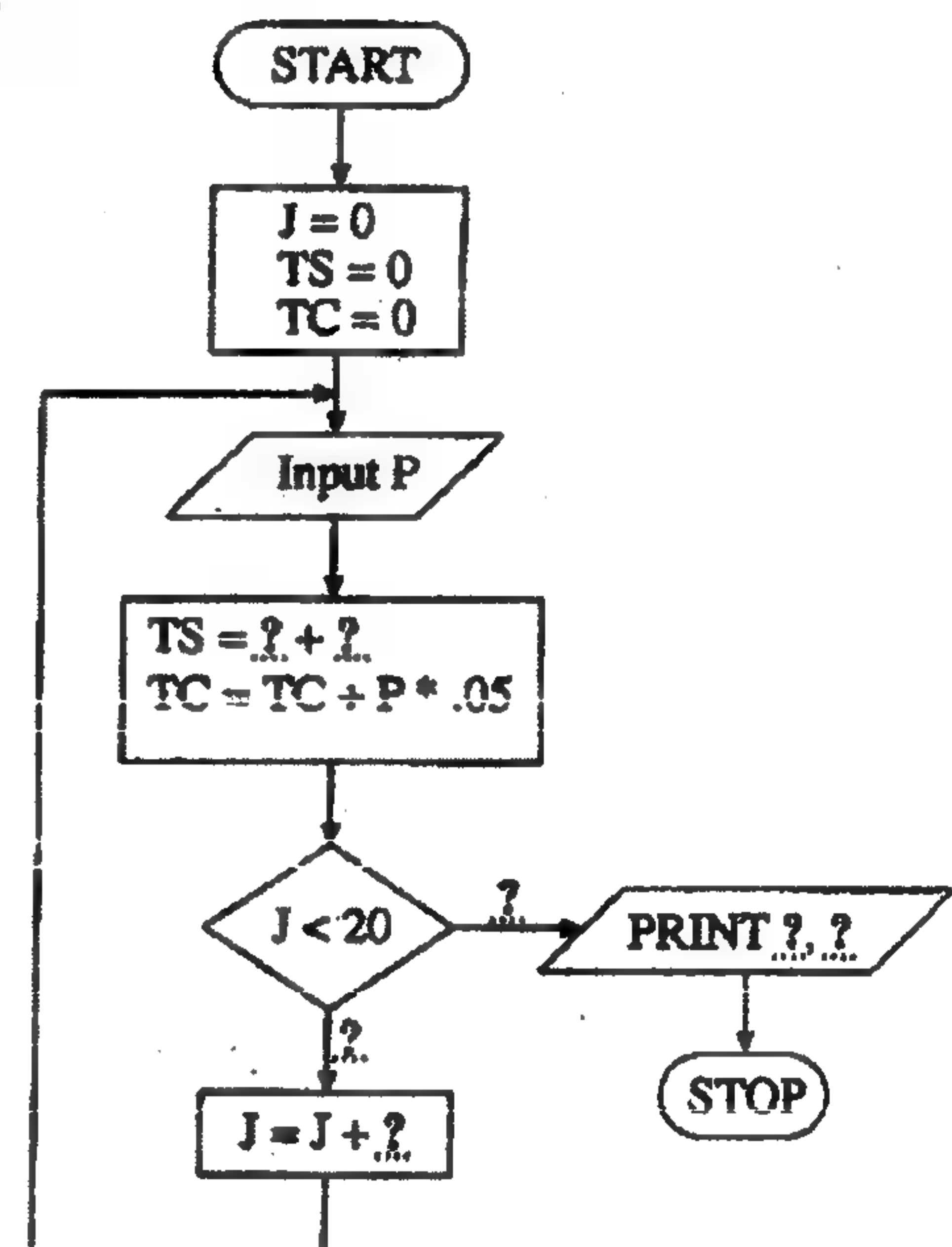
(b) A company that sells mobile phones has twenty salesmen who receive a commission of 5% from their sales.

The following flowchart computes the total sales value and total commission for a particular day based on the value of sales made by each salesman. The total value of sales and the total commission earned by all the salesmen are printed at the end of the process.

The following variable names have been used in the flowchart:

J: Counter  
P: Value of sales by a salesman  
TC: Total Commission  
TS: Total Sales

Copy the flowchart given into your answer script and fill in the seven (7) spaces denoted by '?'.





**Q5 - Answers**

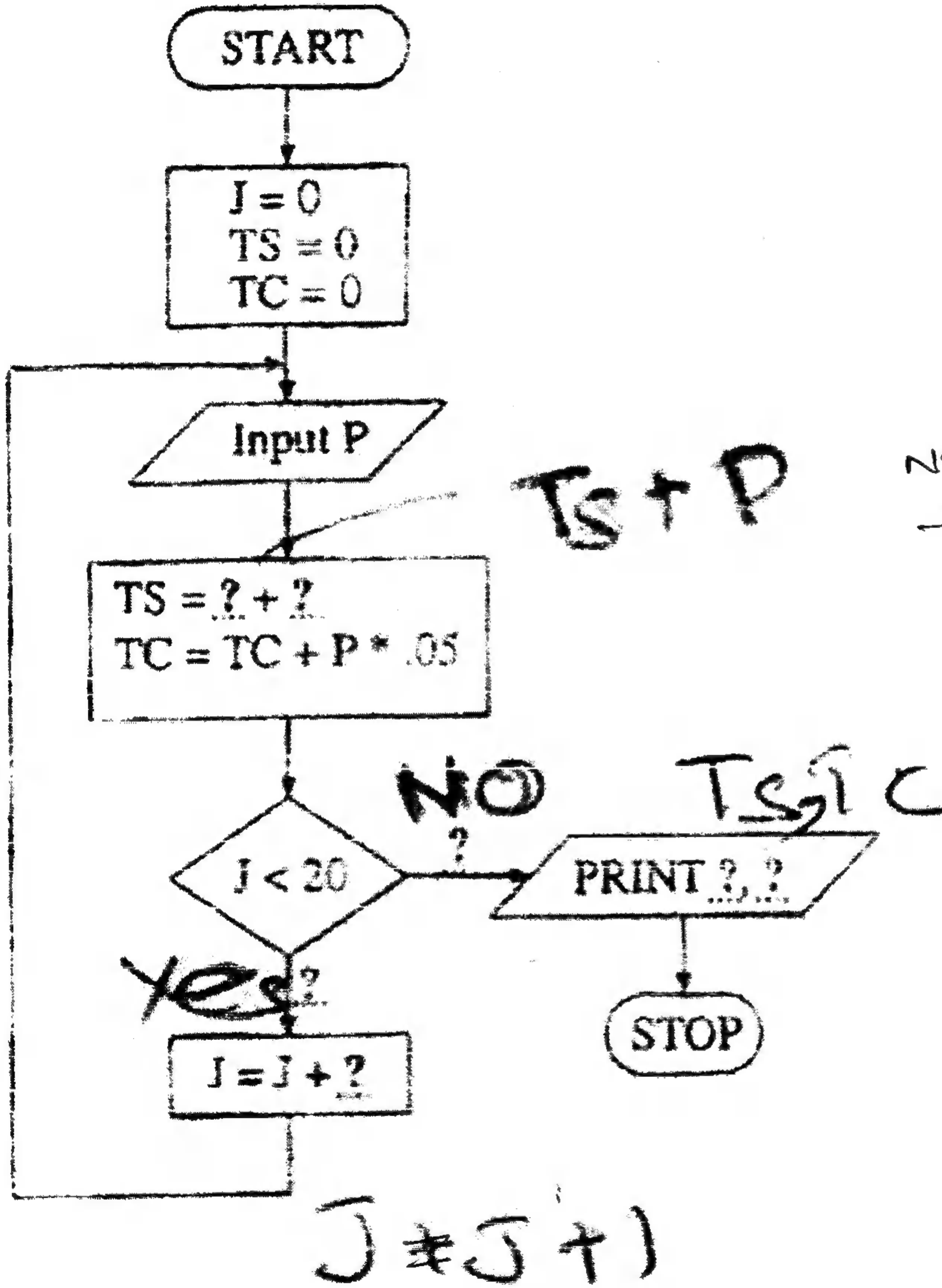
(a)

A=input/output or input or output உள்ளீடு / வெளியீடு

B=Process / செயன்முறை

C=decision / condition / தீர்மானமெடுத்தல் / நிபந்தனை

[2x3 = 6 marks]



No marks for without flow diagram, answer



(b)

$$TS = TS + P$$

[3x2 = 6 marks]

No / இல்லை

[2 marks]

TS, TC அல்லது TC, TS

[3 x2= 6marks]

Yes / ஆம்

[2 marks]

$$J = J + 1$$

[3 marks]

**[25 marks]**



6. (a) Consider the following table with two columns. The left column of the table contains labels for some job titles in the ICT field. The right column of the table consists of some of the tasks associated with these jobs.

Job Title	Task
A	formats and combines text, numerical data, photographs, charts and other visual graphic elements using computer software to produce publication-ready material.
B	analyses, designs, implements and tests systems.
C	assists selection in the acquisition and installation of computer systems.
D	Uses word processing, spreadsheet, database and presentation packages to improve the office productivity.

Write down the most suitable job titles for jobs indicated by labels A, B, C, D using the list of job titles given below.

**List of Job Titles:** Software Engineer, Web Developer, Network Administrator, Desktop Publisher, Systems Engineer, Computer Application Assistant

- (b) Fill in the blanks indicated by labels K to O in the statements given below using the most appropriate term given in the following list:

**List of terms:** security threats, malware, anti-virus software, piracy, privacy, logical security, physical security, firewall

You are required to write the matching term against the labels K to O.

- Unauthorized copying of software is an example for .....K.....
- Virus, Worm and Trojan Horse are examples for .....L.....
- Keeping the door of a server room locked is an example for .....M.....
- Using passwords to protect a computer system is an example for .....N.....
- Controlling incoming and outgoing network data is an example for a functionality of a .....O.....



**Q6 - Answers**

(a)

- i. A=Desktop Publisher/ மேசை மேல் வெளியீட்டாளர்
- ii. B=Software Engineer/ மென்பொருள் பொறியியலாளர்
- iii. C=Systems Engineer/ முறைமைப் பொறியியலாளர்
- iv. D=Computer Applications Assistant/ கணினிப் பிரயோக உதவியாளர்

[2.5x4 =10 marks]

(b)

- i. K=Piracy/ தனித்துவம் உரிமைகீழல்
- ii. L=Malware/ பிறழ் பொருள்
- iii. M=Physical Security/ பௌதிகப் பாதுகாப்பு
- iv. N=Logical Security/ தர்க்கவியல் பாதுகாப்பு
- v. O=Fire Wall/ தீச்சுவர்

[3x5 =15 marks]

**[25 marks]**